

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 10/825,627 Conf. No.: 7862  
Applicants : Akira HATAKEYAMA et al.  
Filed : April 16, 2004  
Art Unit: : 1752  
Examiner : Amanda C Walke  
Docket No. : Q80779  
Cust. No. : 23373  
For : **LIGHT-SHIELDING LAYER FOR DISPLAY DEVICE**

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

**DECLARATION PURSUANT TO 37 C.F.R. 1.132**

Sir:

I, Akira HATAKEYAMA, do declare and state as follows:

I graduated from the University of Tokyo, Graduate School of Science,  
Department of Correlative Study of Physics and Science with a Master's degree in  
Science in March 1980;

I joined Fuji Photo Film Co., Ltd. (hereinafter, "Fuji") in April 1980, and have  
been working there ever since;

I was involved in the development in the field of silver halide photographic

photosensitive material from April 1980 to June 1998;

From June 1998 to present, I have been involved in the development of thermal transfer image recording materials including black matrix used for liquid crystal displays;

I am an inventor of the subject matter disclosed and claimed in the above-identified patent application; and

I am familiar with the Office Action of December 27, 2005, and understand the Examiner's rejections therein.

The following additional experiments were carried out by me or under my supervision in order to make the advantages of the subject matter more clear.

### EXPERIMENTS

#### Test for Showing Relationship of Optical Density and Thickness of Photosensitive Layer in Sato et al. (USP No. 5,527,649 & USP No. 5,718,992)

A sample of a light-shielding layer was prepared in the same manner as in Example 1-1 of the present application, except that a hued coating material Y-7 shown in Sato et al. (USP No. 5,527,649 & USP No. 5,718,992) was used as a light-shielding layer coating solution. Thereafter, the film thickness of the light-shielding layer obtained was 0.82  $\mu$  m, as measured with a probe-type surface roughness meter P-1 (trade name, manufactured by TENKOP Co.), and the optical density (OD) of the light-shielding layer was 2.8, as measured at a visual mode with Macbeth densitometer

(trade name: TD-904, manufactured by Macbeth Co.).

Further, when the film thickness of the light-shielding layer was changed to 2  $\mu$  m, the optical density thereof could not be measured due to the overscale, and when the film thickness was changed to 0.9  $\mu$  m, the optical density was 3.0.

Accordingly, it is understood that a light-shielding layer having a film thickness of 0.9  $\mu$  m or less and an optical density of 3.3 or more according to the present invention cannot be obtained with a light-shielding layer in which carbon black is used as the main pigment. That is, the relationship of the film thickness and the optical density in the present application cannot be achieved with the light-shielding layer of Sato et al.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 9. Mar. 2006

Akira Hatakeyama  
Akira HATAKEYAMA